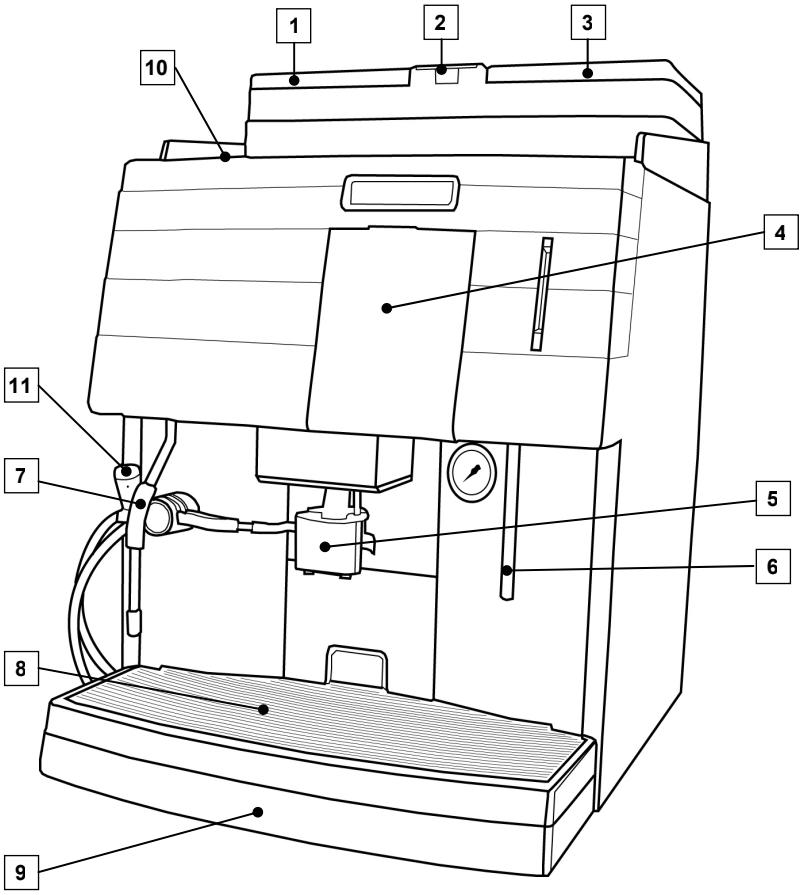
Ambiente 1

with Milk Smart

User manual

schaerer®

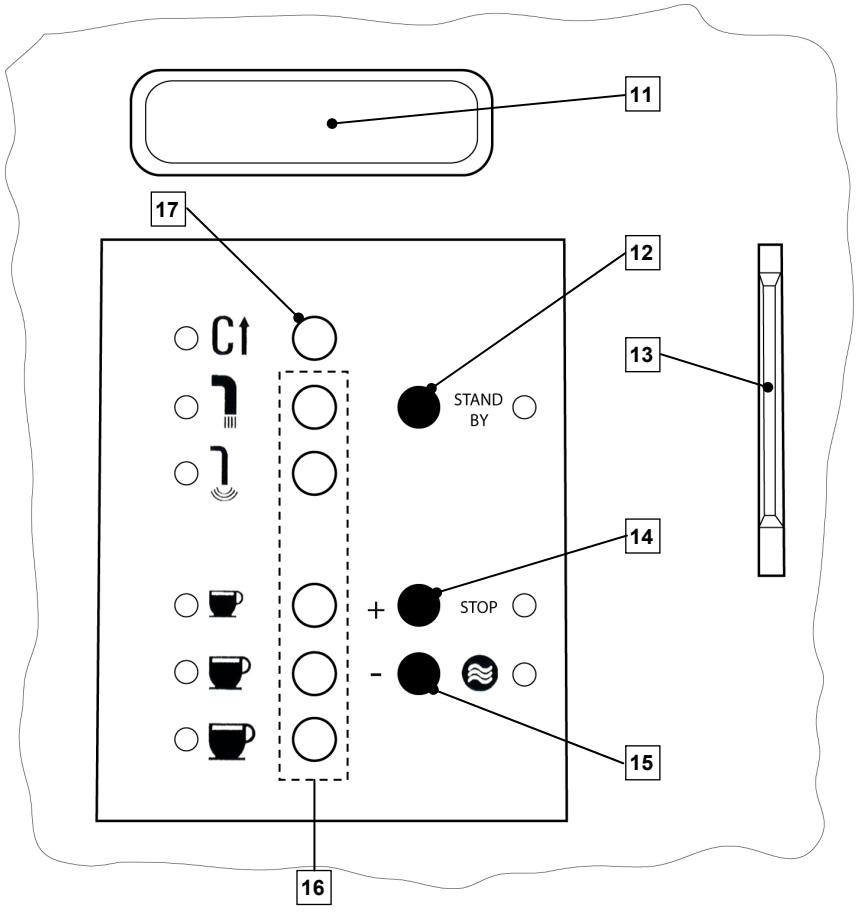
celebrating coffee competence



Legend:

1. Bean container grinder 1 (standard grinder)
2. Inlet opening for additional coffee powder and cleaning tabs
3. Bean container grinder 2 (option)
4. Control panel (detail see below) *
5. Coffee outlet
6. Hot water outlet
7. Steam outlet
8. Drip grid
9. Drip tray with / without drain (optional)
10. Tassenblech
11. Cup plate

* **Customer specific!**
(Standard panel / Self Service panel)



Legend:

11. Two-lined illuminated LCD-Display
12. Stand-By- (ON / OFF) Button incl. LED
13. Card reader
14. Stop- and plus-button incl. LED
15. Cleaning and minus button incl. LED
16. Free programming product buttons
17. Shift button incl. LED

Illustration: Standard panel

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User manual
BASO 1 MS - 02

Order Number: 021'456

Ambiente 1

User manual

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User manual
Designed and edited by: M. Schaerer Ltd., CH-3302 Moosseedorf

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1. Chapter

1 The User manual

This manual will inform you in detail on programming, commissioning, use and cleaning of your new machine. It also contains important safety instructions to ensure safe use. We therefore recommend that you read all instructions carefully before commissioning the machine and that you keep them handy for future reference. These operating instructions cannot take into consideration every possible use. For further information, or in the event of problems that are not covered in these operating instructions, or not covered in sufficient detail, please consult an authorised specialist. Keep the operating instructions in a safe place and hand them on to a subsequent owner.

Prior to commissioning the machine, carefully read the chapter "Safety instructions". The manufacturer rejects any liability for damages that are caused by improper use of the machine

Performance of the coffee machine depends to a great extent on proper use and careful maintenance of the machine.

The interests of further technical development, the right is reserved to make structural or design changes to the machine. The relevant changes are automatically notified by the Customer Service.

Technical changes are always documented in a new set of operating instructions.

1.1 Symbols and pictograms

This section provides you with important notes and information.

This note indicates possible damage to property as well as possible financial and statutory penalties (e.g. loss of rights to claim under guarantee, liability suits, etc.).

This note indicates a risk of severe and/or fatal injury if specific procedural rules are violated.
Whenever you see this symbol in the operating manual, take all necessary safety precautions.

Risk of severe and/or fatal injury due to electric shock!

Environmental protection!
This symbol indicates that you have to comply with environmental regulations and/or legislation.

Display messages

The displays shown in the manual always follow immediately after their respective description and relate to the actual display on the coffee machine.

```
Select product
12:00          01.01.2005
```

Chipcards
The card name (CHEF and SAVE DATA) is shown in capital letters. You will also see a picture of the relevant chip card to the left of the instruction in question.

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2 Safety instructions

2.1 General

This chapter warns you about possible dangers when operating your new machine. The information contained herein on how to recognize hazardous situations enables a safe and proper operation.

The coffee machine will be handed over by a service technician authorized by the manufacturer. Prior to commissioning the machine, read the operating instructions carefully and ensure that you fully understand them.
Always comply with your local safety regulations and hygienic guidelines.
Be sure that only authorized and trained personnel work on the machine!
Always keep this manual in a handy place near the machine.

2.2 Safety symbols

The following symbols appear next to all safety instructions in this manual. Follow the instructions to the letter and proceed with particular care in the cases described.

This note indicates a risk of severe and/or fatal injury if specific procedural rules are violated.
Whenever you see this symbol in the operating manual, take all necessary safety precautions.

Risk of severe and/or fatal injury due to electric shock!

This note indicates possible damage to property as well as possible financial and statutory penalties (e.g. loss of rights to claim under guarantee, liability suits, etc.).

This section provides you with important notes and information.

2.3 Prevention of accidents

In the event of incorrect operation or misuse, one or more of the following might occur:

- Risk of severe and/or fatal injury of the operator, third persons or animals that are in close proximity to the machine,
- Risk of damage to machine and other property of the operator or of third parties,
- Inefficient performance of the machine.

People who are not familiar with these operating instructions, as well as children or people under the influence of alcohol, drugs or medication may not operate the machine. On self-service units, danger zones such as the steam pipe and the hot water outlet must be labelled in such a manner that the warning is clearly visible to the customer.

The installation, programming, maintenance and repair of the coffee machine must be carried out only by authorized service technicians.

The machine must be connected to the power supply system and drinking water lines in compliance with the regulations of your local service providers.

Work on electric systems may be carried out only by qualified engineers or technicians.
The machine must be connected to a fuse-protected circuit.
Appropriate directives on low voltage systems and/or the country's or local safety rules and regulations apply.
We recommend connection through a residual current operated circuit-breaker.
The connection must be grounded and protected against sparkover in compliance with regulations.
The voltage must comply with the information given on the machine's serial plate.

To prevent water damage caused by hose breakage, it is recommended to run the water line via a water stop valve (mains-side).

Never insert the power plug into the socket when wet and do not touch the plug with wet hands.

The beverages delivered by the coffee machine are hot! To protect yourself against scalding, keep hands and other body parts away from the outlet area during the preparation and delivery of beverages.

Parts of the product outlets, the hot water pipe and the steam pipe become very hot during the machine's cleaning cycle and when coffee, milk, hot water or steam are delivered. Always touch all outlets only at the specially designed protective elements.

Pressing the [ ] button will only switch off the machine, but not physically separate it from the mains.
If your machine is equipped with a refrigerator, do not disconnect the power supply, as this will switch off the cooling system.
When the coffee machine is not used for a prolonged period of time (e.g. business vacation), follow the procedures outlined in chapter "Extended idle times."

Do not operate the coffee machine if the water supply is shut off, as otherwise the boiler will not refill.

Never disconnect the water line while the machine is switched on or in stand-by mode.

STOP

Never touch live parts!
Always switch off the main switch or disconnect the machine from the mains before carrying out any maintenance work.

Malfunctions may be repaired only by authorized and qualified personnel.

Only use original spare parts.

STOP

Immediately report damaged cables and plugs to an authorised and qualified technician and have them repaired or replaced.
If the mains cable is damaged, it may be replaced only by a service technician authorized by the manufacturer.

Immediately report visible damages and leakages to an authorised and qualified technician and have them repaired or replaced.

Environmental protection!
When selecting cleaning agents, make sure that they are environmentally safe, bear no health risks, and comply with local disposal regulations.
Use cleaning agents recommended by the manufacturer.

2.4 Hygiene

Prior to commissioning, run the cleaning program (cf. chapter "Cleaning").

- Always follow hygiene regulations according to **HACCP**!
  (HACCP= Hazard Analysis and Critical Control Point)
- Don't use raw milk. Use only pasteurised or UHT milk. Homogenized milk must always be used.
- Milk that has already been heated up or for which the expiry date has lapsed may not be used.
- When using packaged milk, it is recommended for hygienic reasons to use the milk directly from the original packaging.
- The milk in the refrigerator must have a temperature of approx. 3 °C to 5 °C.
  If this rule is not followed, it is not possible to dispense an optimal product.
- Only refill with milk which has not exceeded 5 °C. Never put warm milk in the refrigerator. It takes too long for a temperature of 3 °C to 5 °C to be reached. The refrigerator will also ice up. (Frequent defrosting required).
- For daily and weekly cleaning, proceed as described in chapter "Cleaning".
- Never spray the machine with water or other liquids.
- For cleaning, never immerse the machine in water or any other liquid.

During cleaning and usage of cleaning tools or products, there is a risk of injury.

2.5 Designated use

Proper use of the machine and the included accessories and options are subject to the agreement on use, any other existing additional agreements and the general terms and conditions of the M. Schaerer Ltd.. The operating manual is an integral part of the above agreement of use. Any usage other than within the limits specified herein shall be regarded as not in accordance with the designated use. The manufacturer shall not be liable for any resulting damage.

2.6 Liability

Guarantee and liability claims in the event of injury to people and damage to property cannot be entertained if they are due to one or more of the following causes:

- Any use other than the designated one
- Improper assembly, commissioning, operation and maintenance of the machine and its options
- Non-compliance with specified maintenance intervals
- Operating the machine with defect safety devices or with safety devices that are either not in place or not functioning properly
- Non-compliance with safety instructions in this manual with special regard to storage, installation, commissioning, operation and maintenance of the machine
- Operating the machine in other than perfect condition
- Repairs not carried out by a qualified technician
- Catastrophic damage due to the influence of foreign bodies, accidents, vandalism and force majeure
- Intrusion into the machine with objects and opening of the housing

The manufacturer's warranty exclusively covers machines that have been properly maintained at the intervals specified and where original spare parts are used that were directly supplied by the manufacturer or one of the manufacturer's authorized suppliers.

Maintenance of the machine has to be carried out either after **12 months** or after **30’000** coffee products have been dispensed.

Safety-relevant parts, such as safety valves, safety thermostats, boiler, etc., must be replaced and **may not to be repaired under any circumstances**. These parts always have to be replaced.

- Safety valves every **12 months**
- Boilers (steam generators, instant heaters) every **60 months**

3. Chapter

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3 Description

3.1 Coffee machine data

3.1.1 Overview

(See Cover back page)

3.1.2 Coffee machine operating panel

(See Cover back page)

3.1.3 User facility

The following beverages can be made with the Schaerer Ambiente 1:

- Coffee creme
- Coffee
- Espresso coffee
- Decaffeinated coffee („light coffee“)
- Steam to heat up milk
- Hot water for aromatic tea
- Cappuccino (Option / Milk Smart)

3.1.4 Safety precautions

The maintenance of the machine must be executed by qualified personnel, every 30`000 coffees. The authorization is given by M. SCHAERER Ltd. only.

This machine may not be used in commercial kitchens without the prior permission of the authorized M. SCHAERER Ltd. representative.

The ambient temperature must not fall below 10ºC or rise above 40ºC.

The machine must never be sprayed from a hose or with a high-pressure jet cleaner. Neither should the use of steam cleaning appliances be considered.

Never spill any liquids into the cup stand.

Never put your hand into the bean containers when the machine is switched on.

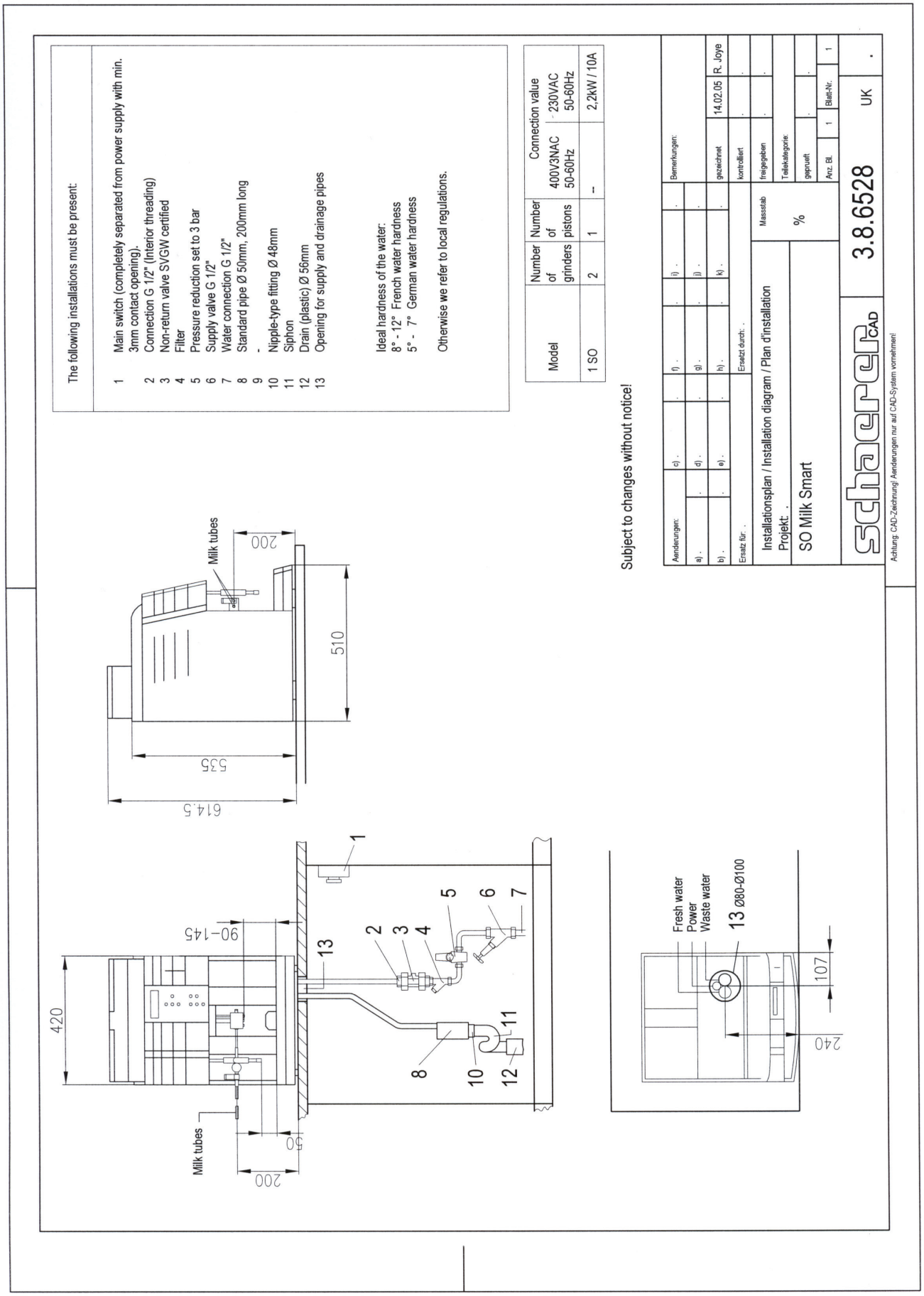
Never put your hand under the coffee, hot water or steam outlets during product delivery or when drawing hot water, to avoid risk of scalding.

The machine should only be operated by trained staff.

The manufacturer will entertain no liability for damage or consequential losses of any kind.

The noise value can increase up to 70 db (A), especially by heating up of drinks.

3.1.5 Installation layout Ambiente-1 with Milk Smart



3.1.6 Serial plate

The serial plate contains the machine-specific data. This serial plate is on the inside of the machine and is visible when the coffee ground container is removed

Inst. No:	.....	
Type:	.....	
Serial-No:	.....	
Pressure:	.....	bar
Voltage:	.....	Watt
Power:	.....VAC.....	Hz

3.2 Product data

3.2.1 Performance

The output is 80 to 120 cups of coffee or tea per day.

3.2.2 Dimensions

Width	420 mm	
Height	620 mm	
Depth	510 mm	
Outlet height coffee	95 / 170 mm	
Weight	33 kg	(1 SO)

Subject to modification!

3.2.3 Energieversorgung

Model	Connecting values	
1 SO	2.2 kW / 10 A	230 V AC (PNE)
1 SO Tee	2.2 kW / 10 A	230 V AC (PNE)
1 SO Tee-Simultan	2.2 kW / 10 A	230 V AC (PNE)
15 SO	2.2 kW / 10 A	230 V AC (PNE)
15 SO Power steam	6.0 kW / 16 A	400 V AC (3 PNE)
15 SO Power steam	5.3 kW / 25 A	210 V AC (PNE) USA

The electrical connection must be effected according to the existing prescriptions (VDE 0100) and the local laws and prescriptions.

The power supply line must be at least H 07 RN-F. The voltage indicated on the machine type plate must be identical with the one where the machine will be used.

The phase must be secured with 10A, with the exception of the 15 SO Powersteam.

For special voltages please contact M. Schaerer Ltd. or an authorized representative.

3.2.4 Water connection / outlet

If the machine is connected to a newly installed water supply line then please make sure that the supply line and the connecting tube are rinsed carefully so that no dirt can get into the machine.

The coffee machine must be connected to an installed drinking water supply line (with water tap). The installation is done via the fitted pressure hose and the screwing G 1/2" to the pressure reducer which is fitted directly on the water tap (adjust on 3 bar).

For the water outlet you have to connect a temperature resistant outlet hose to the waste water metal blade and the syphon. Fix the same firmly on the outlet and make sure that the water can flow out easily.

The ideal limestone of the water should not be higher than **6-8°dWH** (German water hardness measure) or **8-12°fWH** (French water hardness measure). The chlorine content should not be higher than **100 mg per liter**. Ideal **ph-value = 7**. Otherwise see the local rules.

3.3 Equipment and accessories

3.3.1 Model variations

The Schaerer Ambiente 1 model is available in four different versions:

1 SO	= Coffee only
1 SO Milk Smart	= Coffee - and Milk products
1 SO Tee	= Coffee and hot water
1 SO Tee-Simultan	= Coffee and hot water simultaneous
15 SO	= Coffee, hot water and steam

3.3.2 Standard accessories

Article	**Order No.**
-1 User manual	*
-1 Quick reference card	*
-1 Chip card „CHEF“	063930
-1 Chip card „ SAVE DATA“	063933
-1 Spoon	067111
-1 Packing of cleaning tablets	065221
-2 Seal	064249
-1 Nippel (G1/2“)	068179
-1 Brush	067409
-1 Outlet hose	063353
-1 Main power cord CH or Euro-Norm	063260 or 063261
-1 reinforced hose	067766

3.3.3 Special accessories

Designation	Order No.
- Additional chip cards	
„PROGRAMM“	063941
„KEY BLOCK“	063931
„COFFEE TEST“	063932
„MANAGER“	063940
„LOAD“	063937
„MASTER“	063934
„KELLNER“	063936
„COPY WAITER“	063942
„PRINT“	063943
„MONEY A - H	063922 - 063929
„1 kg“	063938
„Cup“	063939
„Credit - Look“	063946
„Clean“ (for cleaning the card reader)	063945

- MONEY-System.
- Accounting systems such as drinks systems (CSI-Coffee Standard Interface, KMIP), payment systems (CCI = Coffee Credit Interface e.g. coin and token slots, MDB -S like CCI)
- Water softener
- 2nd grinder (DUO)
- Water tank (for operation without fresh water connection)
- Cappuccinatore (for a comfortable heating up of milk)

3.4 Commissioning

3.4.1 Initial commissioning of the coffee machine

The coffee machine must be installed and commissioned by a service technician authorised by the manufacturer.

3.4.2 Set-up conditions

3.4.3 Location

- **Prior to installing, ensure that the coffee machine will not be positioned on a hot surface or near an oven.**
- **Not suitable for outdoor use. Never expose the coffee machine to external conditions such as rain, snow, frost, etc.**
- **Do not place the coffee machine on a surface cleaned with a hose.**
- **Only place the appliance where it can be supervised by trained personnel.**
- **The support surface for the unit must be stable and level and may not be deformed by the weight of the coffee machine.**

- The location must comply with the following climatic conditions:
  - Ambient temperature from 10 °C to 40 °C (50° F to 104° F)
  - Relative humidity max. 80 % rF
- The machine is designed exclusively for interior use.
- Protect the machine from frost. If the coffee machine has been exposed to temperatures below freezing point, contact an authorised customer service representative before you start the unit.

3.4.4 Installation of the coffee machine

The installation of the coffee machine should be done under the following conditions:

- Install the supply lines as shown in the mains-side installation diagrams to within one meter of the place of installation.
- Conform to the technical data.
- Provide and maintain sufficient clearance for maintenance work and operation:
  - above for filling coffee beans
  - Keep approx. 35 cm clear on left side (1 foot)
  - A minimum of 15 cm between machine back and wall (air circulation) (6 Inches)
- Comply with the respective local statutory regulations regarding catering premises.

Please see the plan on page 3-3 for the dimensions of the coffee machine after installation.

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4 Operation

4.1 Introduction

This chapter describes the basic functions of the coffee machine. Read them carefully to ensure easy and problem-free routine operation.

Proper installation and programming of the coffee machine by an authorised service technician are crucial for a smooth operation and good product quality.

- **During product release, never move cups or other objects positioned below the beverage outlet, the hot water outlet or the steam pipe! The beverages delivered by the machine are hot! After having pressed the selection button, keep hands and other body parts away from the outlets to prevent scalding!**
- **Never aim steam or hot water jets against persons!**
- **Do not touch the hot cup plate or the beverage outlets. Touch the hot water outlet and the steam pipe only at the insulated handles.**
- **The coffee machine does not stop when a cup is removed from underneath an outlet during serving.**
- **The beverages delivered by the coffee machine are hot! To protect yourself against scalding, keep hands and other body parts away from the outlet area during the preparation and delivery of beverages.**
- **Keep away from underneath the steam pipe while steam is delivered! Hold the container in such a way that no liquid is spilled onto your hands or other body parts during heating!**
- **The steam pipe is hot. Touch the steam pipe only at the rubber handle.**
- **When the boiling point is reached, the beverage may start to spill. During steam delivery, ensure that the steam pipe remains immersed in the liquid.**
- **To avoid burns, touch the delivery mechanism on the insulated parts only.**

Switch off the coffee machine if you accidentally pour liquid over the cup plate (risk of short-circuit)!
Contact customer service representative immediately.

Environmental protection!
Noise emission levels can be up to 70 dB (A), particularly when heating up beverages.

4.2 Operating Modes

The control board is switched off. The coffee machine is still connected to the power supply.

```
<< Standby >>
12:00        01.01.2005
```

Display example

Your coffee machine is ready for operation. When a product button is pressed, the selected beverage is delivered.

```
select product
12:00        01.01.2005
```

Display example

When switched on again, the machine will need a short time to reach the programmed operating temperature.

4.3 Messages displayed when coffee machine is ready for operation

..... grounds cont. full	Empty the grounds container. Up to five more coffees can be made; after that, the espresso machine locks.
..... heat up ...	The temperature of an instantaneous water heater has fallen to more than 10°C below the programmed value. Please wait until the machine has warmed up again before dispensing the next product.
..... clean machine	Start the cleaning program (cf. 5 "Cleaning", page 5-1).

4.4 Routine operation

For the functions described in this chapter, it is assumed that the coffee machine is ready for operation. The display must show the following text:

```
select product
12:00      01.01.2005
```

Display example

4.4.1 Refilling of coffee beans

Both coffee bean containers (1) should only be filled with max. 0.75 kg of coffee beans each.

Never fill the coffee bean containers with a different product than roasted coffee beans!
The coffee grinder is set for a specific coffee blend. When changing the blend, the grinder and the dosing apparatus must be readjusted by a manufacturer-authorized service technician.

Never reach with your hands into the coffee bean container(s) when the machine is switched on.
When refilling the bean container(s), do not reach into the grinder and do not press a product button!

1. Open the lid of the empty bean container.
2. Refill with espresso beans (max. 0.75 kg per container). Replace the container lid.

4.4.2 Pre-checks

Prior to switching on the machine, check the following:

- The fresh water supply is open
- The espresso bean container(s) is (are) filled (cf. 4.4.1 "Refilling of coffee beans" on page 4-3).
- The coffee grounds container has been emptied.
- The coffee machine is connected to the power supply.
- The following text must be shown on the (dark) display:

```
<< Standby >>
12:00      01.01.2005
```

Display example

4.4.3 Switching on the coffee machine

1. Turn on the coffee machine by pressing the **[STAND BY]** button, or insert the **CHEF card** into the card reader, if the service technician has programmed the machine accordingly. The green LED next to the **[STAND BY]** button will illuminate.
2. If the coffee machine has been turned off for a long period of time, the following message will appear:

   select product
   heat up

   Heat-up time approx. 2 minutes

   If the service technician has programmed the machine to rinse automatically when it is switched on, the following message appears:

   select product
   << flush >>

   Flush time approx. 1 minutes

   The red LED next to the **[⊕]** button will flash during the rinse cycle.
3. As soon as the operating temperature has been reached, the following message will appear:

   select product
   12:00 01.01.2005

- If the cleaning program was run before the coffee machine was switched off, a rinse cycle is automatically run when the coffee machine is turned back on and, if programmed to do so by a service technician, a sample coffee is served.

4.4.4 Preparing - DECAF products

If a service technician has installed and enabled the second product level, the product buttons can be used to select decaf products:

- Level 1 for regular coffee
- Level 2 for DECAF coffee

No product can be programmed onto the **[C↑]** button.

STOP

The beverages delivered by the coffee machine are hot! To protect yourself against scalding, keep hands and other body parts away from the outlet area during the preparation and delivery of beverages.

1. Position one or two empty cup(s) underneath the coffee outlet.
2. Press the **[C↑]** button.

   select product
   12:00 01.01.2005

   Display example

   The LED next to the pressed button illuminates.
3. Press the desired product button.

   select product
   Pre select .. Serving ..

   The LED next to the pressed button illuminates.

4. If you do not want to dispense any other products on this level, press the product button assigned to t[ ] button to return to level 1.
5. Do not remove the cup before the LED next to the product button is switched off.

4.4.5 Preparing - Coffee and hot water

The beverages delivered by the coffee machine are hot! To protect yourself against scalding, keep hands and other body parts away from the outlet area during the preparation and delivery of beverages.

1. Put the cup underneath the outlet.
2. Press the desired product key.

   The LED next to the pressed button illuminates. The following message appears on the display:

   ```
   select product
   Pre select ..    Serving ..
   ```

3. The whole production process is now being done completely automatically.

4.4.6 Preparing - Steam

For steam delivery press the [ ] button. The steam is delivered through the steam pipe located to the left of the beverage outlet.
The steam output can be cancelled by pressing the [ ] button again.

- Steam can not be pre-selected.
- Steam can be delivered together with coffee beverages or hot water.

Keep away from underneath the steam pipe while steam is delivered! Hold the container in such a way that no liquid is spilled onto your hands or other body parts during heating!

1. Point the steam pipe towards the drip grid. Press the [ ] button to clean the inside of the steam pipe.
2. Immerse the steam pipe in the beverage as deeply as possible.
3. Press the [ ] button.
   Steam will be discharged.
   The following message is displayed:

   ```
   select product
   12:00      01.01.2005
   ```

4. Heat the liquid to the desired temperature. Ensure that the steam pipe is always immersed in the liquid.

   Hint: The deeper the sound, the higher the temperature of the heated liquid.

   End or cancel steam delivery. Press the [ ] button.

5. Place the container on a stable surface.
6. Clean the outside of the steam pipe with a wet and clean paper cloth.
7. Point the steam pipe towards the drip grid. Press the [①] button twice in short sequence to clean the inside of the steam pipe.

4.4.7 Preparing Cappuccino using the Milk Smart system

Insert the suction hose (1) into the milk container.

The height differential between the milk pack and the Cappuccinatore should not be less than 40 cm.
Milk that has already been heated or which is past its use-by date cannot produce any foam.

The beverages delivered by the coffee machine are hot! To protect yourself against scalding, keep hands and other body parts away from the outlet area during the preparation and delivery of beverages.

1. Put the cup underneath the outlet.
2. Press the desired product key.

   The LED next to the pressed button illuminates. The following message appears on the display:

   select product
   Pre select .. Serving ..

3. The whole production process is now being done completely automatically.

4.5 Operating instructions for special machines

The following instructions apply only to machines with fresh water and waste water tanks.

4.5.1 Filling the fresh water tank

If the water level in the fresh water tank is too low, the **[⊕]** button will flash. The display shows:

product blocked
water tank empty

1. Remove the fresh water tank.
2. Fill it with fresh water.
3. Return the water tank to its correct position.
4. Press the red flashing **[⊕]** button to confirm.

To ensure that the water pump does not run dry, the product selection option is disabled when the level in the water tank is too low.

4.5.2 Emptying the waste water tank

The **[⊕]** button flashes when the waste water tank is full. The display shows:

product blocked
waste water full

1. Remove the waste water tank.
2. Empty the water tank and rinse it out.
3. Return the waste water tank to its correct position.
4. Press the red flashing **[⊕]** button to confirm.

To prevent the waste water tank from overflowing, the product selection option is disabled.

4.5.3 Operating instructions for appliances with fresh and waste water tanks (on trolleys)

- Capacity:
  - freshwater tank - 16 litres
  - waste water tank - 11 litres
- The fresh water tank must be filled with clean, fresh drinking water every day.
- If the machine is not used for some time, both tanks must be emptied and cleaned.
- The interior of the trolley must be kept dry at all times.
- The two tanks must only be used when they are correctly positioned (level monitoring).
- For safety reasons, pull the trolley from place to place - do not push it.
- The trolley is not intended for the transport of goods. M. SCHAERER Ltd. does not accept liability for damage that occurs because the trolley is handled incorrectly or because the instructions in the manual have not been followed.

4.5.4 Ambiente with side-mounted fresh water tank

The following is displayed each time the machine is switched on and before it is cleaned:

```
water tank full ?
```

1. Remove the water tank.
2. Fill it with fresh water and replace it.
3. Empty the drip tray, clean it and replace it.
4. Press the flashing **[⊕]** button to confirm.

If there is insufficient water for the product ordered, the machine switches off and the display shows:

```
water tank empty
```

Carry out steps 1 to 4.

5. Re-order the product.
   Pressing a product button several times fills the pipework with water. **Take care** if accounting mode is active, e.g. pressing the cleaning button.

The capacity of the tank is 4.5 litres.

4.5.5 Ending operation / Switching off the coffee machine

If the coffee machine is not going to be used for longer periods, e.g. nights, it should be switched to stand-by. In this mode, the boilers are not heated and no beverages are available.

1. Do the daily cleaning (see Chapter 5 "Daily cleaning").
2. Briefly press the **[STAND BY]** button; the display will go dark.
   The following message is displayed:

```
<< Standby >>
```

4.6 Extended idle times

4.6.1 Extended idle time of up to 4 weeks (e.g. holiday close-down)

1. Do the weekly cleaning (see chapter 5 "Weekly cleaning").
2. Set the machine first into stand-by mode: see chapter 4.5.5, "Ending operation / Switching off the coffee machine" page 4-8.
3. Close the fresh water supply tap.
4. Turn off the main switch, or disconnect the power supply (unplug).
5. Vacuum the coffee beans out of the containers.
6. On premises where the temperature can drop below zero, the boilers must be emptied. To empty the boilers, ask a customer service authorized by the manufacturer for assistance.

If you resume operation at later point in time, ensure that you open the water supply first and only then switch on the power supply.

4.7 Programming using standard chip cards

The CHEF and SAVE DATA cards are part of the standard delivery package. They provide a simple means of changing settings or retrieving information from the coffee machine.

- For all the functions described in this chapter, it is assumed that the coffee machine is ready for routine operation in normal operating mode.
- Keep the chip cards in a safe place where only authorized persons have access to them.
- When a chip card has been inserted, the **[** (STAND BY)**]** button lights up and product selection is disabled.

4.7.1 CHEF card

The CHEF card enables the principal settings or modifications to be undertaken for routine operation.

4.7.2 Menu overview

- Read daily counter for coffees and teas per key.
- Reset daily counter
- Read annual total for coffee and for each button
- Read monthly total for coffee and for tea
- Delete annual total
- Adjust quantity of product dispensed
- Change quantity of coffee ground
- Change on/off timer
- Change time
- Change date
- Change PIN code

At the end of every menu:
Remove CHEF card -> normal standby mode or press the **[⊕]** button to go to the next menu.

4.7.3 Read daily counter for coffees and teas per key

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** button until the following menu is displayed:

daily counter **select product**	.....

= Displayed number shows the total of all delivered coffee products

3. Press the product buttons to read the counter values for each individual product including those selected with the **[C↑]** button.

4.7.4 Reset daily counter

1. Insert CHEF card into the card reader.
2. Press **[⊕]** or **[⊖]** button until the following menu is displayed:

delete counter **execute**	**`C`**

3. Press the **[C↑]** button.

4. Press the [C↑] button to set the daily counters to zero.

- **To avoid deleting the daily counter:**
  Remove the CHEF card or
  press the [⊕] button.

5. The counters are set to zero.

```
Done...
```

4.7.5 Read annual total for coffee and for each button

1. Insert the CHEF card into the card reader.
2. Press the [⊕] or [⊖] button until the following menu is displayed:

```
annual total
total prod. counter      ....
```

3. Press the product buttons to read the counter values for each individual product including those selected with the [C↑] button.

4.7.6 Read off monthly total for coffee and for hot water.

1. Insert the CHEF card into the card reader.
2. Press the [⊕] or [⊖] button until the following menu is displayed:

```
monthly total
execute     `C`
```

3. Press the [C↑] button:

```
month 1 +/-      C ►
K     ...    T    ...
```

4. Use the [⊕] and [⊖] buttons to query values for each month.
5. Press the [C↑] button:

```
monthly total
execute     `C`
```

- Can only be set to zero when the annual counter is deleted.

4.7.7 Delete annual total

1. Insert the CHEF card into the card reader.
2. Press the [⊕] or [⊖] button until the following menu is displayed:

```
annual total
delete press `C`
```

3. Press the [C↑] button:

```
annual total
delete ?    `C`
```

4. Press the [C↑] to delete the annual counter.

- **To avoid deleting the annual counter:**
  remove the CHEF card or
  press the [⊕] button to go to the next menu.
- The monthly total is deleted at the same time.

4.7.8 Adjusting the quantity of product dispensed

Use this function to set the amount of water delivered for each product individually.

1. Insert the CHEF card into the card reader.
2. Press the **[⊕]** or **[⊖]** button until the following menu is displayed:

   change fill quantity
   select product

3. Place a cup under the coffee outlet.
4. Press the product button for which you want to change the water quantity.
5. Water delivery starts. The display shows:

   change fill quantity
   stop with `STOP`

6. Press the **[⊕]** button to end the readjustment process.

- If the quantity is not correct, or to readjust the quantity for other products, repeat steps 4 to 6.
- The loss of some water after you press the **[⊕]** button is normal.

4.7.9 Change quantity of coffee ground

1. Insert the CHEF card into the card reader.
2. Press the **[⊕]** or **[⊖]** button until the following menu is displayed:

   change grind quantity
   select product

3. Press the coffee product button for which you want to change the quantity of coffee ground.

   change grind quantity
   grind quantity .....

4. Use the **[⊕]** and **[⊖]** buttons to change the value (100 = 1 sec. grinding time).
5. Press the **[C↑]** button to confirm your entry.
6. The grinding time now has a new setting.

- Repeat steps 3 to 5 to adjust the quantity ground for other coffee products.

4.7.10 Changing the switch on and switch off times

The machine can be switched on and off automatically to save electricity, for example.

1. Insert the CHEF card into the card reader.
2. Press the **[⊕]** or **[⊖]** button until the following menu is displayed:

   on / off time
   execute ``C`

3. Press the **[C↑]** button:

   switch on 12:00

4. Use the **[⊕]** and **[⊖]** buttons to set the hours and minutes. Press the **[C↑]** button to confirm each entry. After confirming the minute setting, the following is displayed:

   switch on 12:00
   switch off 13:00

5. Repeat step 4 to set the switch off time.

- Timer operation can be switched on or off with the PROGRAM card.
- If the machine has switched off automatically, it can be switched on at any time with [STAND BY] **[ ]** button. This interrupts the switching function until the next cycle.
- The switching times are only active Monday - Friday. The machine is not switched on automatically at the weekend.

4.7.11 Changing the time

1. Insert the CHEF card into the card reader.
2. Press the **[⊕]** or **[⊖]** button until the following menu is displayed:

change time
execute `C`

3. Press the **[C↑]** button:

change time
12:00:00

4. Use the **[⊕]** and **[⊖]** buttons to set the hours.
5. Confirm with the **[C↑]** button.
6. Repeat steps 4 and 5 to set the minutes and the seconds.

4.7.12 Changing the date

1. Insert the CHEF card into the card reader.
2. Press the **[⊕]** or **[⊖]** button until the following menu is displayed:

change date
execute `C`

3. Press the **[C↑]** button:

change date
30.01.2005

4. Use the **[⊕]** and **[⊖]** buttons to set the day.
5. Confirm with the **[C↑]** button.
6. Repeat steps 4 and 5 to set the month and the year.

4.7.13 Changing the PIN code

1. Insert the CHEF card into the card reader.
2. Press the **[⊕]** or **[⊖]** button until the following menu is displayed:

change PIN-code
execute `C`

3. Press the **[C↑]** button:

PIN-code 0000

4. Use the **[⊕]** and **[⊖]** buttons to set the first digit of the new PIN code.
5. Confirm with the **[C↑]** button.
6. Repeat steps 4 and 5 for each digit until the PIN code has been entered fully.

- Use the **[C↑]** button to copy values that have already been set.
- The PIN code function is only active if the machine has been programmed accordingly.
- The current PIN code is not displayed.
- Press the top product button to re-enter the PIN code if you make a mistake.

4.7.14 SAVE DATA card

The SAVE DATA card is a back-up card to which all the machine data can be copied.

- When the service technician changes settings on the Ambiente, it prompts the programmer to save the new values to the SAVE DATA card.
- You should keep the SAVE DATA card in a safe place where it can always been found.
- Only use the SAVE DATA card after consulting the authorized SCHAERER customer service team.

4.7.15 Menu overview

- Machine --> card
- Card --> machine

- **At the end of every menu, ensure that you**
  Remove the SAVE DATA card -> normal standby mode or press the **[⊕]** button to go to the next menu.

4.7.16 Saving machine data to the card

1. Insert the SAVE DATA card into the card reader.
2. Press the **[⊕]** button until you see the menu:

   SAVE DATA-card
   machine --> card

3. Press the **[C↑]** button to copy data from the machine to the card:

   ... SAVE ...

4. The data has been copied when you hear a signal and the machine returns to normal standby mode.

   select product
   12:00 01.01.2005

4.7.17 Saving machine data from the card to the machine

1. Insert the SAVE DATA card into the card reader.
2. Press the **[⊕]** button until you see the menu:

   SAVE DATA-card
   card --> machine

3. Press the **[C↑]** button to load data onto the machine from the card.

   ... LOAD ...

4. The data has been copied when you hear a signal and the display shows the date of the latest backup.

   last backup
   Date 01.12.2004

5. Remove the SAVE DATA card from the card reader.

   select product
   12:00 01.01.2005

   The machine returns to normal standby mode.

5. Chapter

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5 Cleaning

5.1 Important general notes on cleaning

Never reach into the machine during automatic cleaning and keep clear of the beverage outlets.

Never clean the machine with a hose or a high pressure cleaner. Do not use steam cleaning devices.
Never immerse the machine in water!

Please follow the generally valid hygiene **HACCP** regulations!
Always follow hygiene procedure in accordance with local and federal health regulations!

- Wash and disinfect your hands thoroughly before cleaning the machine!
- Always follow the dosing instructions, safety notes and warnings on your cleaning products.
- Only use cleaning agents approved by the manufacturer.
- Thoroughly read the instructions regarding cleaning agents in chapter 7, "Cleaning agents". Read the safety data sheets carefully, when supplied.
- Never use abrasives, scrubbers or cleaning tools made of metal!
- Ask the manufacturer or an after-sales service organization authorized by the manufacturer for recommended cleaning supplies.
- All the machine's product buttons will be locked during the cleaning cycle.
- The machine cleaning program consists of an automatic self-cleaning cycle and a manual cycle. Together they form an operating cycle.
- Please note that some components in the following illustrations may differ from those in your machine.
- To ensure that all products are available in best quality, careful daily cleaning is imperative.

5.2 Daily cleaning

The intervals in which the cleaning program is to be carried out are programmed by the service technician. When cleaning is required at pre-set time the display will show:

select product
cleaning program

The automatic cleaning process starts again from the beginning if the coffee machine is switched off or after a power outage.

<< Standby >>

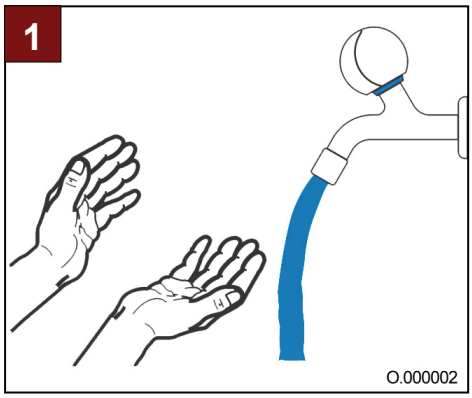
Press [STAND BY] button

select product
cleaning program

If the cleaning program was run before the coffee machine was switched off, a rinse cycle is automatically run when the coffee machine is turned back on and, if programmed to do so by a service technician, a sample coffee is served.

5.2.1 Inside Cleaning

Never use scouring tools, pads or abrasive agents, chemicals or cleaning tools made of metal.
These devices could damage the smooth surfaces and leave behind traces in which harmful germs are more likely to develop.



1 Wash and disinfect your hands thoroughly.
Cover open wounds.
Use protective gloves if necessary.

5.2.2 Automatic rinsing

The automatic rinsing is programmed by a Service technician and is self starting.

5.2.3 Manual rinsing

1. Press the button once.

rinse Milk system

5.2.4 Milk tube rinsing

1. Press the button twice.
   (LED of the cleaning button is illuminated).

rinse Milk system
rinse water

2. Remove Milk container.
3. Fill the cleaning container with 100 ml of warm water (40 °C - 50 °C)
4. Press the button.

The Milk tube rinsing takes about 10 seconds.
(5 seconds for the hot Milk tube / 5 seconds for the Milk foam tube).
We recommend a 'Milk tube rinsing' if no milk products will be dispensed for the next few hours.

5.3 Daily cleaning

Read the information given in the user manual carefully. They contain important information about safety, hygiene, using and maintaining the machine.

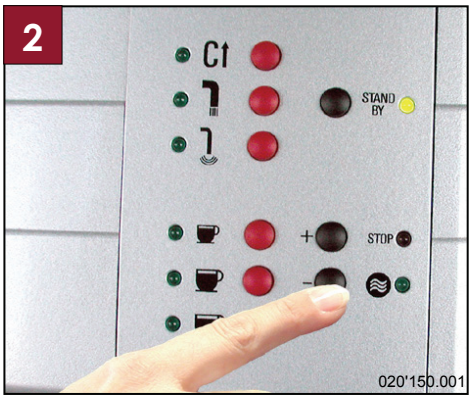
During the automatic cleaning never reach into the machine or under the beverage outlets.

The status of the cleaning and some cleaning steps are shown in the display.

1

- Remove the coffee outlet cup.

2



- Press the button for approx. 1 second.

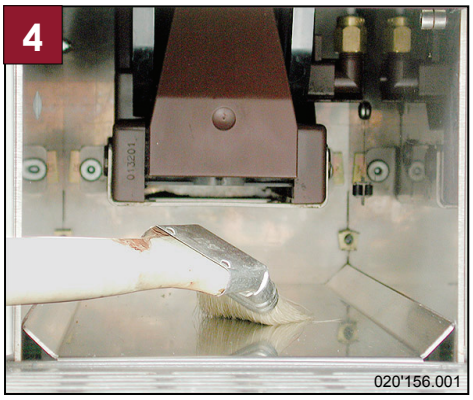
cleaning program
remove container

3

- Pull the coffee grounds container within 5 seconds out of the machine.

cleaning program
manual cleaning

4



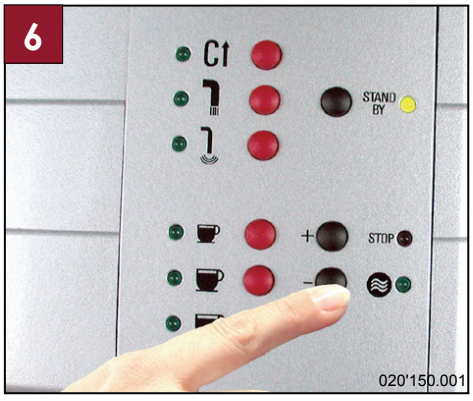
- Clean the brewing chamber with the brush.
- Attach the cleaned coffee outlet cup.
- Replace the cleaned grounds container.

cleaning program
insert tablet

5

- Drop of the cleaning tablet into the ground coffee filling tunnel.

6



- Press the button.

cleaning program
selection locked

The cleaning programme is running
(duration: approx. 5 minutes).

7

Wait until the following display message is showing:

select product
12:00 02.02.2004

- Remove the drip grid and clean it under clean, warm, running water.

8

- Rinse the drip tray with warm water.
- Re-insert the drip grid.

9

- Dry the external surfaces with a clean paper tissue.

5.4 Daily cleaning with Milk Smart

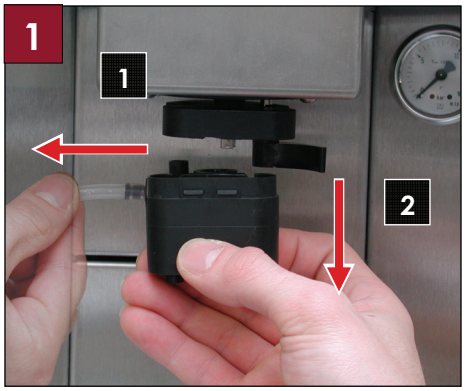
Read the information given in the user manual carefully as it contains important information regarding safety, hygiene, use and maintenance of the machine.

During the automatic cleaning never reach into the machine or under the beverage outlets.

You have the following cleaning possibilities:

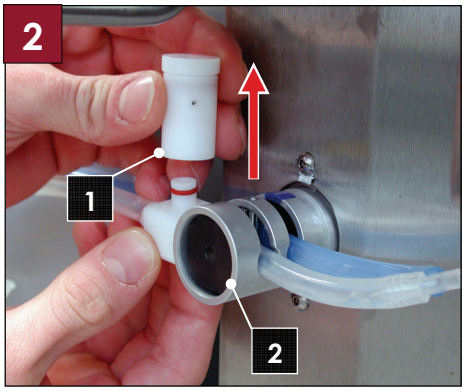
1. Automatic rinsing = Self starting (programmed)
2. Manual rinsing = Press the button once
3. Milk tube rinsing = Press the button twice (rinse duration: approx 10 sec.)
4. Complete cleaning = Press the button for 5 seconds (procedure described as follows):

1



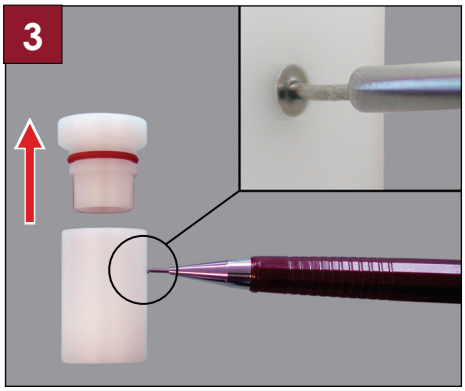
- Pull off the tube [**1**].
- Remove the cappuccinatore [**2**] and wash in warm water.

2



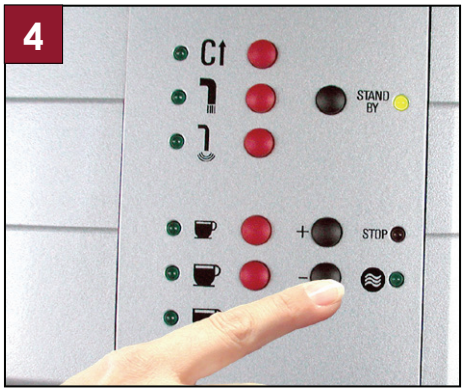
- Remove the expander [**1**].
- Do **not** remove the tubes from the squeezer valve [**2**].

3



- Clean air intake on the expander with the supplied instrument (pencil).

4



- Press the button (for 5 sec.).

cleaning program
remove container

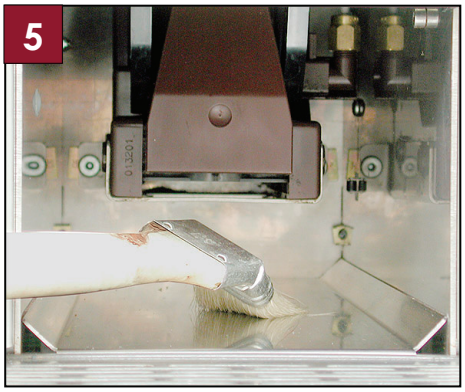
Display

- Pull out the grounds container (within 5 sec.) and clean it.

cleaning program
manual cleaning

Display

5



- Clean the brewing chamber with the brush.
- Attach the cappuccinatore.
- Replace the grounds container.

cleaning program
insert tablet

Display

6

- Insert the cleaning tablet.
- Press the button.

cleaning program
selection locked

Display

Cleaning program is running (duration: approx 5 minutes).

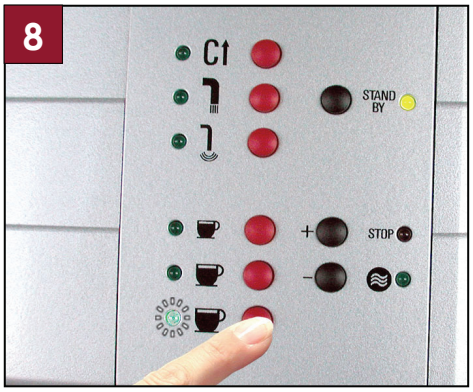
cleaning program
cleaning agent

Display

7

- Fill the cleaning container with 450 ml of warm water (40 °C - 50 °C).
- Add the cleaning agent (50 ml).
- Place the tubes in the container.

8



- Press the button as shown in the picture.

cleaning program

Display

Cleaning program is running (duration: approx 2 minutes).

9

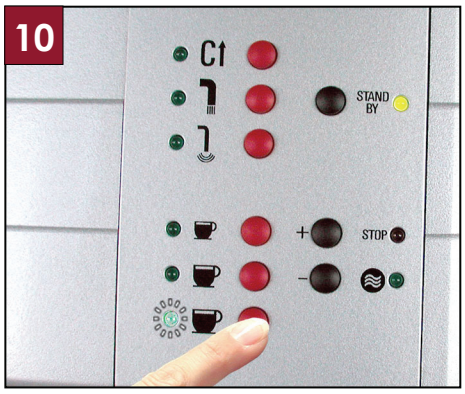
Wait until the display is showing:

cleaning program
rinsing water

Display

- Rinse the cleaning container and fill it with 0.5 litre of warm water.
- Place the tubes in the container.

10



- Press the button as shown in the picture.

cleaning program

Display

Rinsing program is running duration: approx 2 minutes).

Wait until the display is showing:

select product
12:00 01.01.2005

Display

- Remove the cleaning container.

11

- Wash drip grid and drip tray with warm water.
- Re-insert drip grid and drip tray.
- Clean external surfaces with a damp tissue.

Do not use any abrasives!

Follow hygiene regulations according to HACCP!

Extract from HACCP:

- Never refill milk container. Always throw leftovers away.
- Always clean the milk container before filling it with fresh milk.
- Fill up with fresh milk, chilled to 3 °C - 5 °C, just before restarting the machine.
- Use homogenised, pasteurized or ultrahigh temperature treated (UHT) milk! Do not use raw milk!
- For optimum hygiene use a refrigerator (optional) to maintain milk temperature.

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6 Error messages and malfunctions

6.1 Display messages

Display	Cause	Rectification
manual cleaning (sTxt-023)	- If you have removed the ground container, the machine will prompt you, to do the manual cleaning.	
select product 12:00 01.05.2004 (sTxt-003, Fix)	- The machine is ready for dispensing. The product buttons are ready for use (select). The lower left corner indicates the time (military) and the lower right hand corner indicates the date (day. month. year).	
select product clean machine (sTxt-003,sTxt,-171)	- The display prompts this message when the machine has been dispensing a preset (programmable) number of products without a cleaning. *Products can still be served.*	- The only way to clear this message from the display is by initiating the cleaning program.
select product grinder left empty (sTxt-003,sTxt,-178)	- This usually indicates that the left hopper is empty. - It may also mean that the bean flow into the grinder is blocked (i.e. sticky beans, piece of plastic). *Left coffee outlets are disabled*	- If so, fill hopper with beans (max. 1.8 lbs / 0.75 kg per container) and press the **[⊕]** / STOP button to continue the grind cycle. - So, if the hopper is full, stir the beans with the back of the cleaning brush, then press the **[⊕]** / STOP - button, if necessary two or three times. - If message persists, call for service.
select product grinder right empty (sTxt-003,sTxt-179)	- This usually indicates that the right hopper is empty. - It may also mean that the bean flow into the grinder is blocked (i.e. sticky beans, piece of plastic). *Right coffee outlets are disabled*	- If so, fill hopper with beans (max. 1.8 lbs / 0.75 kg per container) and presss the **[⊕]** / STOP button to continue the grind cycle. - So, if the hopper is full, stir the beans with the back of the cleaning brush, then press the **[⊕]** / STOP - button, if necessary two or three times. - If message persists, call for service.
cleaning program 12:00 01.05.2004 (sTxt-021, Fix)	- This message appears during the quick flush, initiated by pressing and holding the cleaning button for 5 seconds.	
cleaning program remove container (sTxt-021,sTxt,-022)	- When you first press the cleaning program button to initiate the cleaning cycle, the display prompts you to remove the grounds bin. You need to do this immediately.	

Display	Cause	Rectification
cleaning program selection locked (sTxt-021,sTxt,-002)	- This message appears while the cleaning program is running. During the cleaning cycle all product buttons are locked out. The machine can be used again when “select beverage” appears on display.	- If the message persists for more than 5 minutes, call for service.
cleaning program insert tablet (sTxt-024)	- In the cleaning program, after you use the brush, and slide the grounds container back in place, the machine will prompt you that you may now insert the Schaerer cleaning tablet in the tablet opening.	
<< flush >> heating (sTxt-005,sTxt,-172)	- After the cleaning program is finished and the machine is turned off (overnight) and turned on again (next day), it will start a water flush, after it has heated up.	- If the message persists, contact a manufacturer-authorised customer service representative.
<< flush >> selection locked (sTxt-005,sTxt,-002)	- Message indicates that the machine is in the middle of a flush. Message will disappear when flush is finished.	- If the message persists, contact a manufacturer-authorised customer service representative.
<<Standby>> (Fix)	- The machine is turned off and the background of the display is dark. The product buttons don’t work. There is no power to the boilers.	- To turn the machine on press the on/off button.

6.2 Error messages with display

6.2.1 Error messages - coffee machine

Inform your authorized customer service representative immediately if you cannot clear an error message using the tips below!
Do not attempt to repair the espresso machine yourself!

Display	Cause	Rectification
drain tank full (sTxt-187)	-This message only applies to coffee machines without a fixed wastewater outlet -The floating switch has communicated this. *The coffee machine cannot be operated.*	-Empty the wastewater container and then press **[⊕]** / STOP.
heating (sTxt-172)	-When the coffee machine is switched on, no products can be served until the system warms up. -Excessive steam outputs. -Phase fuse defective. -Safety switch has opened. *The coffee machine is blocked.*	-You can dispense coffee and hot water products after approx. 5 minutes. -Check the phase fuse. -If the message persists, contact a manufacturer-authorised customer service representative.
heating steam (sTxt-175)	-Excessive steam outputs. -Phase fuse defective. -Safety switch has opened. *Steam outputs are disabled other products can be dispensed.*	-You can dispense coffee and hot water products after approx. 5 minutes. -Check the phase fuse. -If the message persists, contact a manufacturer-authorised customer service representative.
heating Tea (sTxt-174)	-Excessive hot water outputs right. -Phase fuse defective. -Safety switch has opened. *Hot water outputs are disabled other products can be dispensed.*	-You can dispense coffee and hot water products after approx. 5 minutes. -Check the phase fuse. -If the message persists, contact a manufacturer-authorised customer service representative.
Flowmeter error (sTxt-176)	-Fresh water supply is blocked or one of the stop valves is defective. -Brewing unit is dirty. *Products can still be served.*	-Open stop valve. -Clean the brewing unit. -If the message persists, contact a manufacturer-authorised customer service representative.
motor error (sTxt-190)	-Control defective. *The coffee machine cannot be operated.*	-Contact a manufacturer-authorised customer service representative.
motor control (sTxt-180)	-The control unit has recorded an error function of the motor in the left brewing unit. *Left coffee outlets are disabled.*	-Press the **[**Standby**]** - button 2x and select a espresso product, If the message persists, contact a manufacturer-authorised customer service representative.

Display	Cause	Rectification
grinder left blocked (sTxt-168)	-An object (e.g. a stone) is stuck in the grinder. *Left coffee outlets are disabled*	-Press the **[⊕]** / STOP button. -If the message persists, disconnect the coffee machine from the power mains. Vacuum the coffee beans out of the grinder. Check the grinder for stuck objects. -If the problem still persists, contact an authorised customer service representative.
grinder right blocked (sTxt-169)	-See **"grinder left blocked"**. *Right coffee outlets are disabled.*	-See **"grinder left blocked"**.
level probe steam (sTxt-191)	-The water level in the steam generator is wrong. *Steam discharge is blocked.*	-Check whether the stop valve of the water mains is open. - If the problem still persists, contact an authorised customer service representative.
Gr. container not in place (sTxt-189)	-The coffee grounds container is not in its compartment. -The coffee grounds container is not in its proper final position. -Limit switch is defective. *Kaffeemaschine ist blockiert.*	-Push coffee grounds container fully into coffee grounds container compartment. -Check whether the coffee grounds container is fully inserted into the coffee grounds container compartment. If necessary, remove the coffee grounds residue from the back panel and base plate of the coffee grounds container compartment. -If the message persists, contact a manufacturer-authorised customer service representative.
clean grounds container (sTxt-183)	-The coffee grounds container is full. *The coffee machine is blocked.*	-Empty the coffee grounds container.
grounds container full (sTxt-173)	-You can still serve 5 products before the espresso machine gets blocked.	-Empty the coffee grounds container.
system error **(fix-013)**	-Programming error *Products can still be served.*	-You can temporarily remove this message by pressing the **[⊕]** / STOP button. -Contact a manufacturer-authorized customer service representative immediately.
temp. probe steam (sTxt-177)	-The temperature sensor in the steam generator is defective. *Steam discharge is blocked.*	-Contact a manufacturer-authorised customer service representative.
replace waterfilter (sTxt-196)	-The programmed water quantity has flowed through the filter. The control unit has activated the display message *Products can still be dispensed.*	-The water filter must be replaced. -If you do not have a replacement water filter, contact a manufacturer-authorised customer service representative.

Display	Cause	Rectification
change battery (sTxt-170)	-The battery of the main PC board in the machine is low and needs to be replaced.	-Contact a manufacturer-authorised customer service representative.
button locked (sTxt-012)		-This means that the button you pressed does not have any access to the to the program. -The button is blocked from functioning.
out let sensor brok (sTxt-201)	-The machine is registering a failure in the temperature sensor of the steam wand. **(Option)**	-Option, steam products can be used further (Timeout). -Contact a manufacturer-authorised customer service representative.
> new programming! < (sTxt-001)	-Data loss	-Contact a manufacturer-authorised customer service representative. -Use the DATA SAVE chip card only after previous arrangements have been made with a manufacturer-authorized customer service representative. -Transfer data from the chip card to the espresso machine
<< flush >> (sTxt-005)		-Message indicates that the machine is in the middle of a flush. -Message will disappear when flush is finished. If message persists: -Contact a manufacturer-authorised customer service representative.
<< button ? >> (sTxt-004)	-One of the beverage buttons on the control panel is stuck. Its green LED should be on..	-Press a few times to see if it releases. -If message persists: Press the **[⊕]** / STOP **-** button in order to continue working and contact a manufacturer-authorised customer service representative.
temp. probe coffee (sTxt-184)	-The temperature sensor in the instant heater of the left beverage outlet for hot water is defective. *Kaffeebezüge links sind gesperrt.*	-Contact a manufacturer-authorised customer service representative.
watertank empty (sTxt-188)	-Only for coffee machines without a fixed drinking water connection. *The coffee machine is blocked.*	-Fill up the fresh water container with drinking water and then press **[⊕]** / STOP.

6.2.2 Chip card error messages

The following messages indicate handling errors relating to the chip cards.

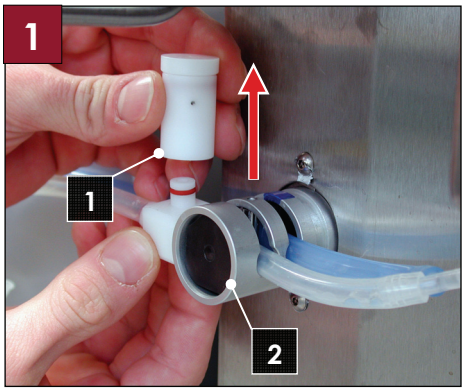
Display	Cause	Rectification
*data error remove card (sTxt-088, sTxt-014)	- The data structure on the SAVE DATA chip card was damaged.	- Request a new SAVE DATA chip card from a manufacturer-authorised customer service representative.
*wrong card remove card (sTxt-086, sTxt-014)	- The current menu requires another chip card type. - A MONEY-card was inserted for the first time.	- Insert the current chip card into the card reader. - The MONEY chip card must be registered. - Contact a manufacturer-authorised customer service representative.
*wrong function remove card (sTxt-083, sTxt-014)		- The card inserted in the card reader does not actuate any function in the currently active menu, or you can not modify the selected parameter on this card.
*reading error remove card (sTxt-089, sTxt-014)	- The chip card was not inserted into the card reader correctly or is defective.	
*wrong PIN-Code remove card (sTxt-081, sTxt-014)	- The wrong PIN code (Personal Identification Number) was entered.	- Enter the PIN code again.
*writing error remove card (sTxt-090, sTxt-014)	- The data was not correctly saved during the transfer to the SAVE DATA chip card. - The chip card was withdrawn from the card reader too early.	- Insert the SAVE DATA chip card into the card reader again and repeat the data transfer.

6.3 Malfunctions without display messages

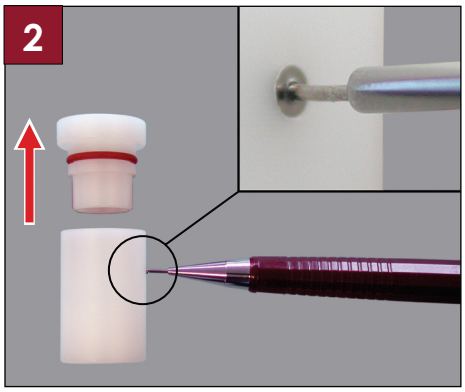
The following problems may occur without causing the espresso machine to display an error message.

Malfunction	Cause	Rectification
Dark display, no message	-Plug at power socket is disconnected or main switch is OFF.	-Reconnect plug at power socket or switch main switch to ON.

6.4 Too little milk foam



1. **Remove the expander [1].**
2. **Do not remove the tubes from the squeezer valve [2].**



3. **Clean air intake on the expander with the supplied instrument (pencil).**

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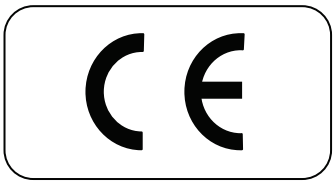
7 Appendix

7.1 CE Declaration of conformity



These products meet the demands of the EU guidelines.

73/23/EEC	Electrical Equipment for Use within Stipulated Voltage Limits.
89/336/EEC	Electromagnetic Compatibility.

The declaration of conformity can be obtained from the following addresses:

M. Schaerer Ltd.
Gewerbestrasse 15
CH - 3302 Moosseedorf / Switzerland
Phone: +41 031 858 85 111
FAX : +41 031 858 51 40
E-Mail: info@schaerer.com
Internet: http://www.schaerer.com

7.2 Cleaning agent

7.2.1 Cleaning powder for coffee machine

Before you use the cleaning powder, read the label on the cleaning powder container and the "HEALTH AND SAFETY DATA SHEET." Should you not be in possession of the safety sheet, please order it from the distributing company.

Purpose: For the daily cleaning of the coffee machine's coffee system.

Form / smell: Cf. "HEALTH AND SAFETY DATA SHEET".

Use:
- Keep the cleaning powder out of the reach of children and unauthorized persons.
- Do not swallow!
- Do not eat or drink while using the cleaning powder.
- Wash hands and face immediately before breaks and after handling the cleaning powder.
- Never mix the cleaning powder with liquid cleaning agents, powder-form cleaning agents or acids!

Emergency information:

Ask the distributing company or a customer service representative authorized by the distributor for the telephone number of the emergency information centre (toxicological information centre) in your country.
If your country has no such or similar institution, call the following number in Switzerland for information in emergencies:

++41 (0) 1 251 51 51 (Toxicological Information Centre)

First aid: Cf. "HEALTH AND SAFETY DATA SHEET".

Important note for physicians:
If possible show the doctor the label on the cleaning agent container or the "HEALTH & SAFETY DATA SHEET".

Storage of the cleaning powder:
- Keep out of the reach of children and unauthorized persons.
- Protect from heat, direct light and moisture.
- Do not store together with acids or alkalines.
- Only store in original containers.
- Do not store together with food, beverages and other items of human consumption.
- Always follow your local regulations concerning the storage of cleaning agents.

7.3 Serial plate of steam generator and instant heater

Type					
Type				HW	DA
Excess operating pressure	.....	.....	.....	.....2,5 bar .	.....2.5 bar
Maximum excess op. pressure	p max	.....	.....	.....12 bar .	.....12 bar
Test excess pressure	.....	.....	.....	.....24 bar .	.....24 bar
Maximum op. temperature	T max	.....	.....	.....192 °C ..	.....192 °C
Minimum op. temperature	T min	.....	.....	.....10 °C ..	.....10 °C
Operating temperature	[1]).....	.....	.....	.....95 °C ..	.....130 °C
Water capacity	Vol....	.....	.....	.....0,8 l.....	.....0.8 l
Voltage	[2])U	.....	.....	.....230 VAC	.....230 VAC
Capacity (Watts)	[3])P	.....	.....	....2000 W...	....2000 W
Construction year:.....		.....	.....	200.....	200.....
Manufacture number.....		.....		HW.....	DA.....
.....					

[1]) temperature selectable
[2]) 230V or 115V
[3]) 2000W or 1750W

7.4 Environmental aspects

Spare parts: Parts exchanged during a service are reconditioned as far as possible and used again.

Cleaning agents: Environmental protection!

If no recycling is not possible, cleaning agents and their packaging must be disposed of in line with local laws and regulations in accordance with the "HEALTH AND SAFETY DATA SHEET."

Energy consumption:

The energy consumption corresponds to the technical state of the art at the time the machine was developed.

Disposal: Environmental protection!

The machines must be disposed off correctly and in accordance with local laws and regulations.

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